

Comparisons of Job Characteristics

Focus Occupation: [Electricians \(47-2111\)](#)

Associated Occupation: [Electrical and Electronic Engineering Technicians \(17-3023\)](#)

[Compare Knowledge](#)

[Compare Skills](#)

[Compare Abilities](#)

[Compare Detailed Work Activities](#)

[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 69

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Computers and Electronics	8.4	15.8	10.1	<< Extensive education and/or training may be required
Engineering and Technology	5.7	12.4	11.8	0 Current knowledge level may be sufficient
Mechanical	6.8	11.6	16.5	>> Current knowledge level is likely more than sufficient
Design	5.2	10.2	13.4	>> Current knowledge level is likely more than sufficient
Telecommunications	3.9	8.4	10.4	> Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 59

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Quality Control Analysis	5.9	8.8	11.0	> Skill level is likely sufficient
Troubleshooting	4.5	8.8	12.3	>> Skill level is likely more than sufficient
Repairing	3.4	8.0	11.6	>> Skill level is likely more than sufficient
Equipment Maintenance	3.5	7.9	10.3	>> Skill level is likely more than sufficient
Equipment Selection	3.3	7.0	8.4	> Skill level is likely sufficient
Technology Design	2.6	4.9	4.4	< A higher skill level may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 76			
Focus Occupation: Electricians (47-2111) Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Comprehension	12.5	12.2	12.2	0	Current ability level may be sufficient
Problem Sensitivity	11.1	12.0	12.7	0	Current ability level may be sufficient
Written Comprehension	11.0	12.0	10.3	<	Some improvement in abilities may be required
Near Vision	11.1	11.6	12.3	0	Current ability level may be sufficient
Oral Expression	12.4	11.6	11.7	0	Current ability level may be sufficient
Deductive Reasoning	10.6	11.1	11.2	0	Current ability level may be sufficient
Information Ordering	9.9	11.0	11.6	0	Current ability level may be sufficient
Written Expression	9.8	10.7	8.1	<<	Extensive improvement in abilities may be required
Finger Dexterity	7.6	9.9	11.8	>	Current ability level is likely sufficient
Visualization	7.5	9.8	12.2	>	Current ability level is likely sufficient
Visual Color Discrimination	6.4	9.6	12.8	>>	Current ability level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 70	
Focus Occupation: Electricians (47-2111) Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)			
Work Activities		Exclusivity of Activity	
Fabricate, assemble, or disassemble manufactured products by hand		11	
Install/connect electrical equipment to power circuit		57	
Read blueprints		10	
Read technical drawings		7	
Repair electronic components, equipment, or systems		74	
Repair or replace electrical wiring, circuits, fixtures, or equipment		49	
Solder electrical or electronic connections or components		55	
Understand service or repair manuals		40	
Use electrical or electronic test devices or equipment		40	
Use hand or power tools		2	
Use oscilloscopes in electronics repair		77	

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 78

Focus Occupation: Electricians (47-2111)

Associated Occupation: Electrical and Electronic Engineering Technicians (17-3023)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Data management and query software	1
Electrical hardware and supplies	47
Electrical measuring and testing equipment	7
Face and head protection	7
Holding and clamping tools	3
Indicating and recording instruments	2
Industry specific software	1
Light and wave generating and measuring equipment	4
Machine tools	7
Mechanical instruments	14
Power generators	16
Power tools	2
Soldering and brazing and welding machinery and supplies	6
Viewing and observing instruments and accessories	4
Vision protection and accessories	3
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.